## **EAST Search History**

## **EAST Search History (Prior Art)**

| Ref # | Hits | Search Query                                   | DBs  | Default<br>Operator | Plurals | Time Stamp          |
|-------|------|--|--|---------------------|---------|---------------------|
| L46   | 3    | 45 and ("time-<br>varying" and ultraso<br>\$3) | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR                  | ON      | 2009/07/27<br>14:30 |
| L45   | 68   | (makin-inder-raj-s).in.                        | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR                  | ON      | 2009/07/27<br>14:30 |
| L44   | 0    | 33 and ("time-<br>varying" and ultraso<br>\$3) | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR                  | ON      | 2009/07/27<br>14:29 |
| L43   | 0    | 34 and ("time-<br>varying" and ultraso<br>\$3) | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR                  | ON      | 2009/07/27<br>14:29 |
| L42   | 3    | 38 and ("time-<br>varying" and ultraso<br>\$3) | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR                  | ON      | 2009/07/27<br>14:28 |
| L41   | 4030 | 38and ("time-varying"<br>and ultraso\$3)       | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR                  | ON      | 2009/07/27<br>14:28 |
| L40   | 0    | 39 and ("time-<br>varying" and ultraso<br>\$3) | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR                  | ON      | 2009/07/27<br>14:28 |
| L39   | 5    | slayton-michael.in.                            | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR                  | ON      | 2009/07/27<br>14:28 |
| L38   | 73   | barthe-peter-g.in.                             | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR                  | ON      | 2009/07/27<br>14:28 |
| L37   | 0    | (makin-inder-raj).in.                          | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR                  | ON      | 2009/07/27<br>14:27 |

| L36 | 0  | (makin-inder-r).in.   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/27<br>14:27 |
|-----|----|---|--|----|----|---------------------|
| L35 | 0  | (makin-inder-r.in.)   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/27<br>14:27 |
| L34 | 20 | (faidi-waseem).in.  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/27<br>14:27 |
| L33 | 19 | (mast-t-d).in.  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/27<br>14:27 |
| L32 | 1  | (ultraso\$3 and imag<br>\$3 and "time-varying"<br>and signal\$1 and<br>difference and subtract<br>\$3 and first and<br>second).clm.   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/27<br>14:26 |
| L31 | 0  | 28 and (phase with (noise or artifact\$1))  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/27<br>14:06 |
| L30 | 13 | 28 and (phase )   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/27<br>14:06 |
| L29 | 0  | 28 and (phase adj shift<br>\$1)   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/27<br>14:05 |
| L28 | 13 | (US-6464640-\$ or US-6322511-\$ or US-6258029-\$ or US-6241677-\$ or US-6193664-\$ or US-6110118-\$ or US-6093149-\$ or US-6030344-\$ or US-6673019-\$ or US-5526816-\$ or US-7410469-\$ or US-6540700-\$).did. | USPAT  | OR | ON | 2009/07/27<br>14:05 |
| L27 | 2  | 26 and ultraso\$3   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/27<br>14:04 |

| L26 | 43    | (phase adj<br>compensation) with<br>(reduc\$4 with (noise<br>or artifact\$1))   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/27<br>14:04 |
|-----|-------|---|--|----|----|---------------------|
| L25 | 14    | 24 and (ultraso\$3 adj<br>signal\$1)  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/27<br>14:03 |
| L24 | 1207  | (phase adj<br>compensation) and<br>(reduc\$4 with (noise<br>or artifact\$1))  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/27<br>14:03 |
| L23 | 10242 | (phase adj<br>compensation)   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/27<br>14:02 |
| L22 | 18    | (ultraso\$3 with treat<br>\$4) and (ultraso\$3<br>with imag\$3) and<br>(signal\$1 with time)<br>and ((subtract\$3 or<br>difference) with signal<br>\$1) and ((first and<br>second) with imag\$3)<br>and (imag\$3 with<br>after with treat\$4)<br>and (noise or artifact<br>\$1) and phase | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/27<br>13:59 |
| L21 | 3     | (ultraso\$3 with treat<br>\$4) and (ultraso\$3<br>with imag\$3) and<br>(signal\$1 with time)<br>and ((subtract\$3 or<br>difference) with signal<br>\$1) and ((first and<br>second) with imag\$3)<br>and (imag\$3 with<br>after with treat\$4)<br>and (phase with<br>compensation)         | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/27<br>13:59 |
| L20 | 3     | (ultraso\$3 with treat<br>\$4) and (ultraso\$3<br>with imag\$3) and<br>(signal\$1 with time)<br>and ((subtract\$3 or<br>difference) with signal<br>\$1) and ((first and<br>second) with imag\$3)<br>and (imag\$3 with<br>after with treat\$4)<br>and (phase adj<br>compensation)          | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/27<br>13:59 |

| L19 | 3  | (ultraso\$3 with treat<br>\$4) and (ultraso\$3<br>with imag\$3) and<br>(signal\$1 with time)<br>and ((subtract\$3 or<br>difference) with signal<br>\$1) and ((first and<br>second) with imag\$3)<br>and (imag\$3 with<br>after with treat\$4)<br>and (noise or artifact<br>\$1) and (phase adj<br>compensation) | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/27<br>13:58 |
|-----|----|---|--|----|----|---------------------|
| L18 | 18 | (ultraso\$3 with treat<br>\$4) and (ultraso\$3<br>with imag\$3) and<br>(signal\$1 with time)<br>and ((subtract\$3 or<br>difference) with signal<br>\$1) and ((first and<br>second) with imag\$3)<br>and (imag\$3 with<br>after with treat\$4)<br>and (noise or artifact<br>\$1)                                 | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/27<br>13:58 |
| L17 | 0  | (ultraso\$3 with treat<br>\$4) and (ultraso\$3<br>with imag\$3) and<br>(signal\$1 with time)<br>and ((subtract\$3 or<br>difference) with signal<br>\$1) and ((first and<br>second) with imag\$3)<br>and (imag\$3 with<br>after with treat\$4)<br>and "time-varying"   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/27<br>13:34 |
| L16 | 34 | (ultraso\$3 with treat<br>\$4) and (ultraso\$3<br>with imag\$3) and<br>(signal\$1 with time)<br>and ((subtract\$3 or<br>difference) with signal<br>\$1) and ((first and<br>second) with imag\$3)<br>and (imag\$3 with<br>after with treat\$4)   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/27<br>13:29 |

| L15 | 158  | (ultraso\$3 with treat<br>\$4) and (ultraso\$3<br>with imag\$3) and<br>(signal\$1 with time)<br>and ((subtract\$3 or<br>difference) with signal<br>\$1) and ((first and<br>second) with imag\$3) | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/27<br>13:29 |
|-----|------|--|--|----|----|---------------------|
| L14 | 371  | (ultraso\$3 with treat<br>\$4) and (ultraso\$3<br>with imag\$3) and<br>(signal\$1 with time)<br>and ((subtract\$3 or<br>difference) with signal<br>\$1)  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/27<br>13:28 |
| L13 | 1225 | (ultraso\$3 with treat<br>\$4) and (ultraso\$3<br>with imag\$3) and<br>(signal\$1 with time)   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/27<br>13:28 |
| L11 | 1    | "5526816".pn. and<br>(average\$1)  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/27<br>12:35 |
| L10 | 1    | "5526816".pn. and<br>(average\$!)  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/27<br>12:35 |
| L9  | 1    | "5526816".pn. and<br>(noise or artifact\$1)  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/27<br>12:33 |
| L8  | 2    | "5526816".pn. and (amplitude)  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/27<br>11:45 |
| L7  | 1    | "5526816".pn. and<br>("B-mode")  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/27<br>11:41 |
| L6  | 1    | "5526816".pn. and (filter\$3)  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/27<br>11:24 |
| L5  | 1    | "5526816".pn. and<br>(scal\$3)   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/27<br>11:22 |
| L4  | 0    | "6030344".pn. and<br>(artifact\$1 or noise)  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/27<br>11:21 |

| L3   | 9   | "6030344" and<br>(artifact\$1 or noise)   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/27<br>11:21 |
|------|-----|---|--|----|----|---------------------|
| L2   | 1   | "5526816".pn. and<br>(artifact\$1 or noise)   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/27<br>11:18 |
| L1   | 0   | "5526816".pn. and (phase with compensation)   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/27<br>11:18 |
| S102 | 8   | (ultraso\$3 with treat<br>\$4 with time) and<br>(signal\$1 with "time-<br>varying")   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/24<br>17:44 |
| S101 | 57  | (ultraso\$3 with treat<br>\$4) and (signal\$1 with<br>"time-varying")   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/24<br>17:43 |
| S100 | 3   | S95 and (601/2-4).<br>ccls.   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/24<br>17:21 |
| S99  | 0   | S97 and (601/2-4).<br>ccls.   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/24<br>17:19 |
| S98  | 33  | ultraso\$3 and (signal<br>\$1 with ("time-<br>varying") ) and treat<br>\$4 and ((subtract\$3)<br>with signal\$1) and<br>((first and second) adj<br>signal\$1) | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/24<br>17:12 |
| S97  | 147 | ultraso\$3 and (signal<br>\$1 with ("time-<br>varying") ) and treat<br>\$4 and ((subtract\$3)<br>with signal\$1)  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/24<br>17:11 |
| S96  | 383 | ultraso\$3 and (signal<br>\$1 with ("time-<br>varying") ) and treat<br>\$4 and ((difference or<br>subtract\$3) with signal<br>\$1)                            | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/24<br>17:11 |
| S95  | 666 | ultraso\$3 and (signal<br>\$1 with ("time-<br>varying") ) and treat<br>\$4  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/24<br>17:11 |

| S94 | 1    | ultraso\$3 and (signal<br>\$1 with ("time-<br>varying") with treat<br>\$4)  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/24<br>17:10 |
|-----|------|---|--|----|----|---------------------|
| S93 | 1350 | ultraso\$3 and (signal<br>\$1 with ("time-<br>varying"))  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/24<br>17:10 |
| S92 | 22   | ultraso\$3 and (treat\$4<br>with ("time-varying"))<br>and (subtract\$ or<br>difference)   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/24<br>17:07 |
| S91 | 39   | ultraso\$3 and (treat\$4<br>with ("time-varying"))  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/24<br>17:06 |
| S90 | 1    | ultraso\$3 with<br>therapeutic\$4 with<br>("time-varying")  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/24<br>17:06 |
| S89 | 1    | ultraso\$3 with treat\$4<br>with ("time-varying")   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/24<br>17:02 |
| S88 | 1674 | ultraso\$3 and treat\$4<br>and ("time-varying")   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/24<br>17:02 |
| S87 | 1001 | (ultraso\$3) and ( time<br>with before with treat<br>\$4) and ( time with<br>after with treat\$4)   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/24<br>17:00 |
| S86 | 0    | (ultraso\$3) and (signal<br>\$1 with time with<br>before with<br>therapeuutic\$4) and<br>(signal\$1 with time<br>with after with<br>therapeutic\$4) | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/24<br>16:55 |
| S85 | 1    | "6030344".pn. and (time with signal\$1)   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/24<br>16:46 |

| S84 | 1   | (ultraso\$3) and (signal<br>\$1 with time with<br>before with treat\$4)<br>and (signal\$1 with<br>time with after with<br>treat\$4) and<br>((difference or subtract<br>\$3) with signal\$1) and<br>scal\$3 and filter\$3 | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/24<br>16:00 |
|-----|-----|--|--|----|----|---------------------|
| S83 | 2   | (ultraso\$3) and (signal<br>\$1 with time with<br>before with treat\$4)<br>and (signal\$1 with<br>time with after with<br>treat\$4) and<br>((difference or subtract<br>\$3) with signal\$1) and<br>scal\$3               | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/24<br>15:59 |
| S82 | 6   | (ultraso\$3) and (signal<br>\$1 with time with<br>before with treat\$4)<br>and (signal\$1 with<br>time with after with<br>treat\$4) and<br>((difference or subtract<br>\$3) with signal\$1)                              | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/24<br>15:55 |
| S81 | 12  | (ultraso\$3) and (signal<br>\$1 with time with<br>before with treat\$4)<br>and (signal\$1 with<br>time with after with<br>treat\$4)  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/24<br>15:54 |
| S80 | 47  | (ultraso\$3) and (signal<br>\$1 with "time-<br>varying") and (subtract<br>\$3 with signal\$1) and<br>(signal\$1 with treat<br>\$4)   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/23<br>18:50 |
| S79 | 392 | (ultraso\$3) and (signal<br>\$1 with time) and<br>(subtract\$3 with signal<br>\$1) and (signal\$1 with<br>treat\$4)  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/23<br>18:50 |
| S78 | 12  | (ultraso\$3) and (signal<br>\$1 with (first adj<br>time)) and (signal\$1<br>with (second adj<br>time)) and (subtract<br>\$3 with (signal\$1 with<br>(first adj time)) with<br>(signal\$1 with<br>(second adj time)))     | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/23<br>18:37 |

| S77 | 24   | (ultraso\$3) and<br>((subtract\$3 with<br>signal\$1) with treat<br>\$4)  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/23<br>18:34 |
|-----|------|--|--|----|----|---------------------|
| S76 | 2    | (ultraso\$3) and<br>((subtract\$3 with<br>signal\$1) with after<br>with treat\$4)  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/23<br>18:34 |
| S75 | 7    | (ultraso\$3) and<br>((difference adj<br>signal) with treat\$4)   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/23<br>18:32 |
| S74 | 2    | (ultraso\$3) and<br>((difference adj<br>signal) with indicat\$3<br>with treat\$4)  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/23<br>18:31 |
| S73 | 9    | S72 and (subtract\$3<br>with signal\$1)  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/23<br>17:14 |
| S72 | 65   | S71 and ((multiple or plural\$3) with signal \$1)  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/23<br>17:14 |
| S71 | 130  | (ultraso\$3 with signal<br>\$1 with "time-<br>varying")  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/23<br>17:14 |
| S70 | 1350 | ultraso\$3 and (signal<br>\$1 with "time-<br>varying")   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/23<br>17:14 |
| S69 | 11   | ultraso\$3 and (first adj signal\$1) and (second adj signal) and (subtract\$3 with (first adj signal) and (second adj signal\$1)) and (time adj vary\$4)               | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/23<br>17:06 |
| S68 | 9    | ultraso\$3 and (first<br>adj signal\$1) and<br>(second adj signal)<br>and (subtract\$3 with<br>(first adj signal) and<br>(second adj signal\$1))<br>and "time-varying" | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/23<br>17:05 |

| <b>S</b> 67 | 178 | ultraso\$3 and (first adj signal\$1) and (second adj signal) and (subtract\$3 with (first adj signal) and (second adj signal\$1))   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/23<br>17:05 |
|-------------|-----|---|--|----|----|---------------------|
| S66         | 9   | S43 and subtract\$3   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/23<br>17:03 |
| S65         | 4   | S42 and subtract\$3   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/23<br>17:03 |
| S64         | 3   | S41 and subtract\$3   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/23<br>17:03 |
| S63         | 3   | S39 and subtract\$3   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/23<br>17:01 |
| S62         | 17  | (ultraso\$3) and (first with signal with (ultraso\$3 adj wave \$1) with time) and (second with signal with (ultraso\$3 adj wave\$1) with time) and ((difference or subtract\$3) with (first and second) with signal\$1 with (treat\$4 or therapeutic\$4)) | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/23<br>16:41 |
| S61         | 106 | (ultraso\$3) and (first with signal with (ultraso\$3 adj wave \$1) with time) and (second with signal with (ultraso\$3 adj wave\$1) with time) and ((difference or subtract\$3) with (first and second) with signal\$1)                                   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/23<br>16:41 |

| S60 | 187 | (ultraso\$3) and (first with signal with (ultraso\$3 adj wave \$1) with time) and (second with signal with (ultraso\$3 adj wave\$1) with time) and ((difference or subtract\$3) with signal \$1) | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/23<br>16:40 |
|-----|-----|--|--|----|----|---------------------|
| S59 | 357 | (ultraso\$3) and (first with signal with (ultraso\$3 adj wave \$1) with time) and (second with signal with (ultraso\$3 adj wave\$1) with time)   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/23<br>16:38 |
| S58 | 13  | (ultraso\$3) and ("time-varying" with signal<br>\$1) and ((difference<br>or subtract\$3) with<br>((first and second) adj<br>signal\$1))  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/23<br>16:29 |
| S57 | 50  | (ultraso\$3) and ("time-varying" with signal \$1) and (calculat\$3 with (difference or subtract\$3) with signal \$1) and ((first and second) adj signal\$1)                                      | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/23<br>16:27 |
| S56 | 0   | (ultraso\$3) and ("time-varying" with signal \$1) and ((difference or subtract\$3) with signal\$1 with treat\$4) and ((first and second) adj signal\$1)  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/23<br>16:27 |
| S55 | 114 | (ultraso\$3) and ("time-varying" with signal \$1) and ((difference or subtract\$3) with signal\$1) and ((first and second) adj signal \$1)   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/23<br>16:26 |
| S54 | 48  | (ultraso\$3) and ("time-varying" with signal<br>\$1) and (subtract\$3<br>with signal\$1) and<br>((first and second) adj<br>signal\$1)  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/23<br>16:23 |

| S53 | 59  | (ultraso\$3) and ((first adj signal) with time) and ((second adj signal) with time) and (( subtract\$3) with (first and second) with signal\$1)   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/23<br>15:30 |
|-----|-----|---|--|----|----|---------------------|
| S52 | 24  | (ultraso\$3) and ((first adj signal) with (first adj time)) and ((second adj signal) with (second adj time)) and ((difference or subtract \$3) with (first and second) with signal \$1)             | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/23<br>15:29 |
| S51 | 18  | (ultraso\$3) and ((first adj signal) with (first adj time)) and ((second adj signal) with (second adj time)) and ((difference or subtract \$3) with (first and second) with signal \$1) and imag\$3 | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/23<br>15:28 |
| S50 | 11  | (ultraso\$3) and (signal<br>\$1 with time with<br>ultraso\$3 with wave<br>\$1) and (subtract\$3<br>with signal\$1) and<br>(medical with (treat\$4<br>or therapeutic\$4))                            | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/23<br>15:20 |
| S49 | 247 | \$1 with time) and  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/23<br>15:19 |
| S48 | 16  | (ultraso\$3) and ((first adj signal) with (time adj varying)) and ((second adj signal) with (time adj varying)) and ((difference or subtract \$3) with signal\$1)                                   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/23<br>15:03 |

| S47 | 43    | (ultraso\$3) and ((first adj signal) with time) and ((second adj signal) with time) and ((difference or subtract \$3) with (first and second) adj signal\$1) and (signal\$1 with ultraso\$4 with wave)                      | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/23<br>14:56 |
|-----|-------|---|--|----|----|---------------------|
| S46 | 20730 | (ultraso\$3) and ((first<br>adj signal) with time)<br>and ((second adj<br>signal) with time) and<br>((difference or subtract<br>\$3) with (first and<br>second) adj signal\$1)<br>(signal\$1 with ultraso<br>\$4 with wave) | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/23<br>14:56 |
| S45 | 44    | (ultraso\$3) and ((first adj signal) with time) and ((second adj signal) with time) and (( subtract\$3) with (first and second) adj signal\$1)  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/23<br>14:51 |
| S44 | 130   | (ultraso\$3) and ((first<br>adj signal) with time)<br>and ((second adj<br>signal) with time) and<br>((difference or subtract<br>\$3) with (first and<br>second) adj signal\$1)  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/23<br>14:51 |
| S43 | 39    | (ultraso\$3) and ((first adj signal) with (first adj time)) and ((second adj signal) with (second adj time)) and ((difference or subtract \$3) with signal\$1)  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/23<br>14:48 |
| S42 | 29    | (ultraso\$3) and ((first adj signal) with (first adj time)) and ((second adj signal) with (second adj time)) and ((difference or subtract \$3) with signal\$1) and imag\$3  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/23<br>14:44 |

| S41         | 26 | (ultraso\$3 with imag<br>\$3) and ((first adj<br>signal) with (first adj<br>time)) and ((second<br>adj signal) with<br>(second adj time))<br>and ((difference or<br>subtract\$3) with signal<br>\$1)                                     | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/23<br>14:42 |
|-------------|----|--|--|----|----|---------------------|
| S40         | 15 | (ultraso\$3 with imag<br>\$3) and ((first adj<br>signal) with (first adj<br>time)) and ((second<br>adj signal) with<br>(second adj time))<br>and ((difference or<br>subtract\$3) with (first<br>and second) with<br>signal\$1)           | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/23<br>14:42 |
| <b>S</b> 39 | 24 | (ultraso\$3 with imag<br>\$3) and ((first adj<br>signal) with (first adj<br>time)) and ((second<br>adj signal) with<br>(second adj time))<br>and (treat\$4 or<br>therapeutic\$4) and<br>((difference or subtract<br>\$3) with signal\$1) | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/23<br>14:37 |
| S38         | 25 | (ultraso\$3 with imag<br>\$3) and ((first adj<br>signal) with (first adj<br>time)) and ((second<br>adj signal) with<br>(second adj time))<br>and (treat\$4 or<br>therapeutic\$4)   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/07/23<br>14:35 |
| S37         | 26 | ((601/2-4).ccls. or<br>(600/407-480).ccls.)<br>and (("time-varying")<br>and treat\$4 and<br>ultraso\$3 and<br>transducer and<br>(difference with<br>signal) and subtract<br>\$3)   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/03/25<br>17:47 |
| S36         | 2  | S8 and ("time-<br>varying")  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/03/25<br>16:23 |

| S35 | 2  | S7 and ("time-<br>varying")  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/03/25<br>16:23 |
|-----|----|--|--|----|----|---------------------|
| S34 | 2  | S6 and ("time-<br>varying")  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/03/25<br>16:23 |
| S33 | 0  | S3 and ("time-<br>varying")  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/03/25<br>16:23 |
| S32 | 0  | S2 and ("time-<br>varying")  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/03/25<br>16:23 |
| S31 | 26 | (600/407-480).ccls.<br>and (("time-varying")<br>and treat\$4 and<br>ultraso\$3 and<br>transducer and<br>(difference with<br>signal) and subtract<br>\$3) | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/03/25<br>16:16 |
| S30 | 0  | S22 and (tim\$3 and signal\$1 and treat\$4 and ultraso\$3 and transducer and imag \$3)   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/03/25<br>16:05 |
| S29 | 1  | S21 and (tim\$3 and signal\$1 and treat\$4 and ultraso\$3 and transducer and imag \$3)   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/03/25<br>16:05 |
| S28 | 0  | S22 and ((time adj<br>vary\$3) and treat\$4<br>and ultraso\$3 and<br>transducer and<br>difference and signal<br>and subtract\$3)                         | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/03/25<br>16:02 |
| S27 | 0  | S21 and ((time adj<br>vary\$3) and treat\$4<br>and ultraso\$3 and<br>transducer and<br>difference and signal<br>and subtract\$3)                         | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/03/25<br>16:02 |
| S26 | 0  | S21 and (("time-<br>varying") and treat\$4<br>and ultraso\$3 and<br>transducer)  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/03/25<br>16:01 |

| S25 | 0   | S22 and (("time-<br>varying") and treat\$4<br>and ultraso\$3 and<br>transducer)   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/03/25<br>16:01 |
|-----|-----|---|--|----|----|---------------------|
| S24 | 0   | S22 and (("time-<br>varying") and treat\$4<br>and ultraso\$3 and<br>transducer and<br>(difference and signal)<br>and subtract\$3) | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/03/25<br>16:01 |
| S23 | 0   | S21 and (("time-varying") and treat\$4 and ultraso\$3 and transducer and (difference and signal) and subtract\$3)                 | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/03/25<br>16:01 |
| S22 | 4   | "5626607".pn. <br>6010531.pn.   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/03/25<br>16:01 |
| S21 | 10  | ("5769790"  <br>"6156029"  <br>"6340352"  <br>"6440147"  <br>"6575969").PN.   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/03/25<br>15:59 |
| S20 | 0   | (("time-varying") and<br>treat\$4 and ultraso\$3<br>and transducer and<br>(difference and signal)<br>and subtract\$3).clm.        | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/03/25<br>15:50 |
| S19 | 0   | (("time-varying") and<br>treat\$4 and ultraso\$3<br>and transducer and<br>(difference adj signal)<br>and subtract\$3).clm.        | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/03/25<br>15:50 |
| S18 | 15  | (("time-varying") and<br>treat\$4 and ultraso\$3<br>and transducer and<br>(difference adj signal)<br>and subtract\$3)             | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/03/25<br>15:43 |
| S17 | 379 | (("time-varying") and<br>treat\$4 and ultraso\$3<br>and transducer and<br>difference and signal<br>and subtract\$3)               | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/03/25<br>15:42 |
| S16 | 0   | S3 and (("time-<br>varying") and treat\$4<br>and ultraso\$3 and<br>transducer and<br>difference and signal<br>and subtract\$3)    | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/03/25<br>15:42 |

| S15        | 0  | S7 and (("time-varying") and treat\$4 and ultraso\$3 and transducer and difference and signal and subtract\$3)                   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/03/25<br>15:42 |
|------------|----|--|--|----|----|---------------------|
| S14        | 0  | S8 and (("time-<br>varying") and treat\$4<br>and ultraso\$3 and<br>transducer and<br>difference and signal<br>and subtract\$3)   | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/03/25<br>15:42 |
| S13        | 0  | S8 and ((time adj vary<br>\$3) and treat\$4 and<br>ultraso\$3 and<br>transducer and<br>difference and signal<br>and subtract\$3) | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/03/25<br>15:41 |
| S12        | 0  | S7 and ((time adj vary<br>\$3) and treat\$4 and<br>ultraso\$3 and<br>transducer and<br>difference and signal<br>and subtract\$3) | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/03/25<br>15:41 |
| S11        | 0  | \$6 and ((time adj vary \$3) and treat\$4 and ultraso\$3 and transducer and difference and signal and subtract\$3)               | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/03/25<br>15:41 |
| S10        | 0  | \$3 and ((time adj vary \$3) and treat\$4 and ultraso\$3 and transducer and difference and signal and subtract\$3)               | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/03/25<br>15:41 |
| <b>S</b> 9 | 0  | \$2 and ((time adj vary \$3) and treat\$4 and ultraso\$3 and transducer and difference and signal and subtract\$3)               | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/03/25<br>15:41 |
| S8         | 65 | makin-inder-raj-s.in.  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/03/25<br>15:39 |
| S7         | 78 | slayton-michael-h.in.  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/03/25<br>15:39 |

| S6 | 70 | barthe-peter-g.in.  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/03/25<br>15:39 |
|----|----|---------------------|--|----|----|---------------------|
| S5 | 0  | barthe-peter-b.in.  | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/03/25<br>15:38 |
| S4 | 0  | makin-inder-raj.in. | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/03/25<br>15:38 |
| S3 | 20 | faidi-waseem.in.    | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/03/25<br>15:38 |
| S2 | 1  | mast-d-t.in.        | US-PGPUB;<br>USPAT; USOCR;<br>EPO; JPO;<br>DERWENT | OR | ON | 2009/03/25<br>15:38 |

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